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10/528,598	10/28/2005	Sylvain Dumet	PF020122	8266
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Joseph J. Laks			EXAMINER	
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PRINCETON, NJ 08543			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,598

Applicant(s)

DUMET ET AL.

Examiner

Andrew C. Lee

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/02)
Paper No(s)/Mail Date 3/21/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is response to the Application #10528598 filed on 3/21/2005.
Claims 1 – 10 are hence entered and presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 3/21/2005 was filed, and the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

4. Claims 1, 6, 8, 10 are objected to because of the following informalities:
Regarding claim 1, the clause "adapted to" in line 7 is not a positive recitation.
Regarding claim 3, the term "initial" should be deleted. It is not sure which initial frame refers to.
Regarding claim 6, the clause "adapted to" in line 12 is not a positive recitation.
Regarding claim 8, the clause "adapted to" in line 3 is not a positive recitation.
Regarding claim 10, the clause "adapted to" in line 3 is not a positive recitation.

According to Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, pp 6 – 7, it states that Language that suggests or makes optional but does not requires steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim: (A) statements of intended use or field of use, (B) “adapted to” or “adapted for” clauses, etc.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 6, 8, 10 are rejected under 35 U.S.C. 112, second paragraph.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, claim 1 states “the device” in line 7. It is unclear as to what is “the device” referring to. Is “the device” referring to “a routing device” or “a device” newly introduces. Clarification is required.

Claim 6 recites the limitations “the original frame”, and “the second frame” in line 15, and “the address of the multicast group management module” in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the initial frame" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitations "switch circuit for use in a device" in line 1, "the original frame", and "the second frame" in line 6, and "the address of the multicast group management module" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahajan et al. (US 6735201 B1).

Regarding **claim 1**, Mahajan et al. disclose method for routing data packets in a routing device connecting a first network and a second network (Fig. 2, col. 8, lines 15 – 24, 44 – 52), the steps of: (a) receiving a frame from a device connected to the first network ("Ethernet frame"; col. 8, lines 61 – 66); (b) forwarding the frame to an internal bridge function of the device (Fig. 4, element 408, Bridge Forwarding Engine); wherein the bridge function is adapted to forward a frame based on a destination address of the

frame ("forwards the packet through the switch using conventional bridge forwarding techniques based upon the MAC destination address contained in the MAC header of the message packet"; col. 5, lines 21 – 24); (c) checking whether the frame contains a multicast group management message ("determine from the IP protocol information 540 whether the message packet 500 is an IGMP message"; col. 9, lines 65 – 67) and in the affirmative, creating a new frame comprising as destination address the destination address of an internal multicast group management module and as payload at least the multicast management data of the received frame (col. 10, lines 1 – 21); and (d) forwarding this new frame to the internal bridge function (col. 10, lines 45 – 57).

Regarding claim 2, Mahajan et al. disclose method according to claimed wherein the first network is an Ethernet network and wherein the steps (a) to (d) are carried out by an Ethernet switch module (col. 8, lines 61 – 67).

Regarding claim 3, Mahajan et al. disclose method according to claimed further comprising the step of inserting into the new frame an identifier of a port on which the initial frame was received ("associated with forwarding index values which identify the port or ports"; col. 9, lines 39 – 55).

Regarding claims 4, 9, Mahajan et al. disclose method and routing device according to claimed wherein the multicast group management message is an IGMP message ("a specific protocol type of multicast messages (e. g., IGMP"; col. 5, lines 9 – 12).

Regarding claim 5, Mahajan et al. disclose method according to claimed further comprising the step, by the multicast group management module upon reception of the new frame, of updating its multicast group information ("update the switch's forwarding table"; col. 6, lines 52 – 61).

Regarding **claims 6, 10**, Mahajan et al. disclose routing device for connecting a first and a second network ("element 300 switch" interpreted as routing device; Fig. 2, col. 8, lines 15 – 24, 44 – 52), said device comprising: (a) a switch for receiving frames from the first network ("Ethernet frame"; col. 8, lines 61 – 66, "element 402 packet Parsing engine" col. 9, lines 29 – 38); (b) an internal bridge function for delivering frames to appropriate modules as a function of respective frame destination addresses, said bridge function being connected to the switch (Fig. 4, element 408, Bridge Forwarding Engine; col. 9, lines 39 – 48); (c) a multicast group management module for maintaining up to date multicast group information based on frames received on the first network, said multicast group management module being connected to the bridge function for receiving selected frames there from ("update the switch's forwarding table"; Fig. 3, col. 6, lines 52 – 61); wherein the switch is adapted to determine whether a received frame comprises a multicast group management message ("determine from the IP protocol information 540 whether the message packet 500 is an IGMP message"; col. 9, lines 65 – 67), and in the affirmative, providing a new frame comprising multicast group management information extracted from the original frame, wherein the second frame has a destination address equal to the address of the multicast group management

module (col. 10, lines 1 – 21), and for forwarding the new frame to the bridge function (col. 10, lines 45 – 57).

Regarding claim 7, Mahajan et al. disclose routing device according to claimed wherein the switch is an Ethernet switch ("packets sent or received from the switch are Ethernet frames"; col. 8, lines 61 – 67).

Regarding claim 8, Mahajan et al. disclose routing device according to claimed wherein the switch comprises a plurality of ports for receiving frames ("the switch is 3-port bridge comprising Port A, port B, and Port R"; col. 8, lines 44 – 56), and wherein the switch is further adapted to include into the new frame a port identifier of the port on which the initial frame containing the multicast group management message arrived ("associated with forwarding index values which identify the port or ports"; col. 9, lines 39 – 55).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ooghe et al. (US 20030123453 A1).

Kobayashi (US 6457059 B1).

Merchant (US 6778547 B1).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-

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3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2619
<7/19/2008>

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2619
7/21/08